



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,415	07/01/2003	Yoshiaki Hori	0505-1206P	9459

2292 7590 11/10/2004

BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
----------

PANG, ROGER L

ART UNIT	PAPER NUMBER
----------	--------------

3681

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/609,415

Applicant(s)

HORI ET AL.

Examiner

Roger L Pang

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-12 and 17 is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, 13-16, and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

The following action is in response to the amendment filed for application 10/609,415 on September 23, 2004.

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Both of these claims depend upon a canceled claim, and therefore lack antecedent basis (it is suggested these claims be amended to depend upon claim 1).

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 6-8, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguri. With regard to claim 1, Oguri teaches a transmission comprising: an output shaft 14; a countershaft 13 extending parallel to said output shaft; an intermediate shaft 28 extending parallel to said output shaft; a forward drive gear 23a being rotatably supported relative to said countershaft; a reverse drive gear 27 being rotatably supported relative to said countershaft; a first intermediate gear 28a being rotatably supported relative to said intermediate shaft, said first

Art Unit: 3681

intermediate gear meshing with said reverse drive gear; a second intermediate gear 28b rotatably supported relative to said intermediate shaft, said second intermediate gear being interlocked with said first intermediate gear to rotate therewith (Col. 2); an output shaft driven gear 23b fixed to aid output shaft, said output shaft driven gear meshing with said forward drive gear and said second intermediate gear; and a gear selecting and fixing device 33 axially and movably mounted on said countershaft for selectively engaging said forward drive gear (via 41) and said reverse drive gear to said countershaft. Oguri lacks the teaching of said output shaft driven gear being the only gear attached to said output shaft. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oguri to omit the remaining gears of different ratios on the output shaft, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. In re Karlson, 136 USPQ 184. With regard to claim 3, Oguri teaches the transmission, wherein said forward and reverse drive gears, said first and second intermediate gears, and said output shaft driven gear are constant-mesh gears (Col. 2). With regard to claim 4, Oguri teaches the transmission, further comprising at least one hydraulic multi-plate clutch 41. With regard to claim 6, Oguri teaches the transmission, wherein said forward and reverse drive gears, said first and second intermediate gears, and said output shaft driven gear are constant-mesh gears (Col. 2). With regard to claim 7, Oguri teaches the transmission, further comprising at least one hydraulic multi-plate clutch 41. With regard to claim 8, Oguri teaches a first speed clutch 21c, a second speed clutch 22c; and a third speed hydraulic multi-plate clutch 41. Oguri lacks the teaching of said first and second speed clutches being hydraulic multi-plate clutches, however, it would be obvious to one of ordinary skill in

Art Unit: 3681

the art at the time of the invention to modify Oguri to employ first and second speed hydraulic multi-plate clutches, since Oguri has already disclosed the teaching of a multi-plate clutch and in order to provide clutches with more accurate slipping ability. With regard to claim 11, Oguri teaches the transmission, wherein said gear selecting and fixing device is a dog clutch 33. Oguri lacks the teaching of said dog clutch being manually operated. It would have been obvious to one of ordinary skill at the time of the invention to modify Oguri to employ a manually operated dog clutch, since Oguri teaches of a manual transmission (Col. 1) and in order to provide more control to the operator. With regard to claim 18, Oguri teaches a transmission comprising: an output shaft 14; a countershaft 13 extending parallel to said output shaft; an intermediate shaft 28 extending parallel to said output shaft; a forward drive gear 23a being rotatably supported relative to said countershaft; a reverse drive gear 27 being rotatably supported relative to said countershaft; a first intermediate gear 28a being rotatably supported relative to said intermediate shaft, said first intermediate gear meshing with said reverse drive gear; a second intermediate gear 28b rotatably supported relative to said intermediate shaft, said second intermediate gear being interlocked with said first intermediate gear to rotate therewith (Col. 2); an output shaft driven gear 23b fixed to said output shaft, said output shaft driven gear meshing with said forward drive gear and said second intermediate gear; and a gear selecting and fixing device 33 axially and movably mounted on said countershaft for selectively engaging said forward drive gear (via 41) and said reverse drive gear to said countershaft; and wherein said gear selecting and fixing device is a dog clutch 33. Oguri lacks the teaching of said dog clutch being manually operated. It would have been obvious to one of ordinary skill at the time of the invention to modify Oguri

Art Unit: 3681

to employ a manually operated dog clutch, since Oguri teaches of a manual transmission (Col. 1) and in order to provide more control to the operator.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oguri as applied to claim 1 above, and further in view of Shinobu. With regard to claim 5, Oguri teaches the transmission, further comprising a main shaft 18 operatively engaged with a crankshaft (Fig. 1) and a torque converter 12. Oguri lacks the teaching of a primary driven gear. Shinobu teaches a crankshaft 10 operatively engaged with a main shaft 12 via a clutch and primary driven gear (Figure). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oguri to employ a primary driven gear in view of Shinobu in order to save on lateral housing space.

Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oguri in view of Shinobu. With regard to claim 13, see rejections of claims 1 and 5. With regard to claim 14, see rejection of claim 18. With regard to claim 15, see rejection of claim 3. With regard to claim 16, see rejection of claim 8.

#### ***Allowable Subject Matter***

Claims 9-12 and 17 are allowed.

#### ***Response to Arguments***

With regard to the Oguri reference, applicant argues two points:

- 1) removing all the gears other than 23b on the output shaft would render the invention non-functional.
- 2) changing the dog clutch 33 from an automatic to a manual clutch is in direct contrast to the invention taught by Oguri.

Art Unit: 3681

With regard to argument 1, given just the structure of Oguri, if the remaining gears (other than 23b) were left off of output shaft 14, Reverse and 3rd gear would still be fully functional. Applicant has claimed limitations for a structure that is taught by Oguri. Just because the applicant has claimed a smaller substructure does not require the cited art to only teach the smaller substructure. Applicant's arguments have been considered, but are not persuasive.

With regard to argument 2, the controls of Oguri are not relevant. The present invention is a transmission. Oguri teaches the claimed limitations, except the dog clutch 33 of Oguri (within the Oguri reference) is taught as an automatically actuated clutch. Oguri teaches that said transmission structures have been used as manual transmissions in the past. Oguri teaches the claimed transmission limitations except for the manual actuation of the clutch, however, since Oguri does teach of manually operated transmissions in the art, it is considered acceptable to change the actuation means back to a manual means, as taught in the art. Applicant's arguments have been considered, but are not persuasive.

#### FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete

Art Unit: 3681

list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 305-3597) on \_\_\_\_\_ (Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_  
\_\_\_\_\_

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the




Art Unit: 3681

processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L Pang whose telephone number is 703-305-0445. The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Roger L Pang  
Patent Examiner  
Art Unit 3681

November 9, 2004